Social Representations of Taxes and Intentions Toward Compliance

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Social Representations of Taxes and Intentions Toward Compliance

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Abstract:

This economics and psychology study proposes to search and determine some psychological factors which could predict different behaviors toward taxes; through the intention of compliance, avoidance, and evasion. Social representations are thus used in order to draw a picture of the socio-cognitive mental frame behind taxes. The questionnaire has been built from others coming from a diverse economical and psychological literature, and it was done by anonymous participants online. The results which were found may be interesting for the previous literature about taxes.

Keywords: motivations, intentions, voluntary compliance, enforced compliance, tax evasion, tax avoidance, cultural values, social representations, social norms, individual norms.

Introduction:

Tax compliance is growing topic in economic research, because of the current crises. In fact, taxes are the first economical resource of the government (Minister of Finances figures) and also they play a role on national competitiveness. The state's budget includes two main categories: the tax revenue and the non-tax revenue. In France the gross tax revenue was 361 684 million euro in 2012 when it was 14 093 million for the gross non-tax revenue (figures coming from the INSEE final state of accounts). These figures coming from the "public accounts" show that taxes represent almost the entire budget of the state in France. Thus, it is important for a government to maximize his taxes' collection nowadays, all the more so since many of them have a deficit. Indeed, the cost of tax evasion has been estimated at 30 to 36 billion euro in France by investigation report on tax evasion presented to Senate by Eric Bocquet the 17th of July 2012. It excludes some risks; otherwise the cost could rise to 50 billion. The report underlined the main problems of banking secrecy and the declining tendency of regulation because of the international completion.

Indeed, recent political reforms show this growing interest for tax compliance since the last crises. The 13th of March 2009, Switzerland had to remove part of its banking secrecy under the pressure of the coming G20. Since this reform, Swiss banks accept to give the identity of their foreign clients to the tax authorities of their country of origin. This reform changed the tax evasion practices in Europe. The 6th of December 2013, a law on fiscal fraud was adopted in France (LOI n° 2013-1117 du 6 décembre 2013 relative à la lutte contre la fraude fiscale et la grande délinquance économique et financière). This law strengthens the criminal provisions applicable in cases of fraud, enhances control means of the administration and increases the penalties for failure to certain reporting obligations.

However, the portion of taxes in the budget of the state varies from one country to another, according to their fiscal policy. Differences in fiscal policies generally translate an orientation of the nation toward a liberal or welfare state philosophy. The proportion of taxes in the budget of the state is normally higher in a welfare state than in a liberal one, but it is always high. It is obviously balanced by higher amount of public good distributed in welfare states. No one could interfere on it because it would violate the national sovereignty even if it has consequences on other nations. Indeed, lower tax rates attract firms favoring tax domiciliation. Another important concern on national tax burden is that it can change the labor cost and thus its competitiveness. Employer contributions are part of the labor cost and countries have different policies on the matter contributing to their labor competitiveness. However, we shall not go deeper in this subject here since it is not the topic we discuss.

Fiscal policies are involved in several economics issues but they also constitute a political and philosophical issue. Taxes finance the public goods and are usually the most powerful economic tool to reduce inequality. The idea of taxing comes from a wealth redistribution fairness philosophy in a Welfare State. This social contract assesses commitments on both parties: citizens are expected to pay taxes and in exchange, the welfare state is supposed to provide public goods (Bates & Lien, 1985). However, the welfare state has an impact on the everyday life of citizens but it varies across social groups; some collect more social benefits than others; tax levels differ between income groups; and some social strata are more dependent on the services of the welfare state than others. This is why the welfare state occupies a prominent position in the political minds of citizens as it does for political parties. The French national institute of statistics (INSEE) claims that taxes reduce the standard of living in the highest quintile of 22% and rise up that of the lowest quintile of 40%.

After all, rational voters should be interested in both knowing and trying to influence how tax money is collected and spent (Edlund & Johannson Sevä, 2012). Taxes are thus a good way to

analyze the trust there is between a state and its citizen, as well as the solidarity between citizens. Often, taxes are perceived as a loss much more than a gain, and people seem to have lost the trust in their state and political organizations. In France, a phenomenon of complete rejection from the fiscal system is leading citizens towards the extreme political parties.

Focusing on fiscal fraud, we thought it was interesting that legal reforms still focus mainly on enforcement effects on compliance and the optimal taxes setting, even if the recent economic research shows that there are other variables implied.

Section 1 will present the previous researches which were done in economics about tax compliance. Section 2 is providing the psychological models used in this research. In section 3, the tested hypothesis and the data's collection are put forward. Section 4 will focus on presenting and analyzing the results. Discussion will be done in section 5, which also concludes.

Literature review:

Previous researches on tax compliance:

Classical economics explanations:

It seems that reforms on compliance are focusing on the penalties and sanctions for those who do not comply (or on the possibility to lower labor cost for firms). The first one is an unsurprising mechanism, which has been suited by economists, to improve compliance. A mathematical model was proposed to explain agents' decision to get involved in illegal actions by rational calculation (Becker, 1968). This economics-of-crime model is based on classical expected utility theory. In this framework, decisions are explained by utility maximization calculation conditioned by the probability of being caught and the amount of

the sanction. That means illegal behaviors are less likely when the probability of being caught and/or the cost of the sanction rise up. This approach is the basis of many insights. In the 1970s, two groups of researchers (Allingham & Sandmo, 1972; Srinivasan, 1973) used this model to study tax evasion. Here agents' decisions are modeled as a binary choice. They can either choose to comply or to evade. In the first case, he/she is sure to have his/her net income. In the second case, two things may happen: he/she is caught with tax evasion and keeps his/her net income minus a penalty or he/she is not caught and enjoys his/her net income plus the amount of tax money he/she avoided. Allingham & Sandmo conclude that "the policy tools available to the government for the purpose of counteracting the tendency to evasion are the tax rates themselves, the penalty rates and the expenditure on investigation, which determines the probability of being detected". These unsurprising predictions have been confirmed by one of the first experimental study we know on tax compliance (Friedland and al., 1978). They prove the positive effect of increasing penalties and audit rates, as well as the negative effect of increasing tax rate on compliance.

Here they refer to the Becker's model focusing on the probability of detection and the cost of sanction but also the level of tax rate which is another significant variable that has been widely discussed just after by Arthur Laffer and that influenced Reagan's economics and fiscal policies. In the framework of the supply-side economics Arthur Laffer proposed a mathematical model predicting an optimal tax rate that maximizes the government revenue. The initial idea is that a government which rises up a tax rate will produce two reactions. There could be a substitution effect and agents will diminish their work to have more leisure or an income effect and they will work more in order to get the same revenue they had before. According to this model he drew an inverted U-shaped curve showing an optimal tax rate that maximizes tax revenue. Indeed, the model predicted that above the optimal level the substitution effect will be progressively higher than the income effect because even without

avoiding taxes, agents will do less effort at work since they are not enough motivated to work anymore. For instance a zero tax rate won't collect any revenue, but the extreme opposite will produce the same result. A government which sets up a hundred percent tax rate won't collect any revenue because everybody will stop working or start to evade.

However, there is a debate on the realistic aspect of this optimal tax rate. Some economists found it too simple assuming a single tax rate and a single labor supply (Gahvari, 1989). Others emphasized on the lack of empirical evidence (Stiglitz, 2007) which confirms the model: this is fundamental in economics when trying to avoid controversies.

Some empirical illustrations of this effect have been done by other economists who found that a tax rate of 50% seems to be the maximum agents accept (Schmöldersn, 1970; Lévy-Garboua and al., 2005). These experimental studies introduced a psychological variable of fairness perception of taxes. Indeed, Lévy-Garboua et al. (2005) conclude that "in order to produce a Laffer effect, fiscal policies need to be felt as intentional, discriminatory and especially hurtful by a group of taxpayers".

These evidences usually come from data analysis or experiments. On the field of tax compliance, James Alm (1991) emphasized the use of experimental methods arguing on the problems of data analysis and above all he underlined the importance of implementing the model by psychological and sociological variables. He did a large literature review comparing predictions of mathematical models and empirical results coming both from experiments and data analysis. He underlined some problems of using empirical data in this field and also concluded that rational agents who base their decisions on expected utility should evade much more than the rational model should predict. He wrote: "The frequency of audit in the United States has fallen to less than one percent, and the additional penalties constitute only a

fraction of the unpaid tax liability. According to expected utility theory, most individuals should choose to under-report all of their taxes".

In order to explain this anomaly, experimental economics is very useful. First of all, there are not many empirical data in this field and their quality is often discussed. Furthermore, Dubin and Wilde (1988) underlined a problem of endogeneity coming from the two-way relationship between the reported income and the audit probability. They claim that since the amount of reported income depends on the probability of being caught, which also influences the reported income, there is a problem of measurement because the assumption of random audit strategy is not respected and thus there is a simultaneity bias. On the other hand, experiments allow to control the effect of extraneous variables and to isolate the studied one to ensure of causality relation. Of course experiments are not perfect. They simplify the reality and do not take into account the complexity of a situation. However, they are very useful in this field since other measurement methods are limited.

Behavioral explanations:

James Alm (1991) proposed to change the way of seeing the problem of compliance exploring other explanations beyond expected utility theory using other social sciences such as psychology and sociology. From his point of view the question is: "why people pay taxes, not why they evade them". Behavioral economists and psychologists are working on understanding tax compliance decision in a more complex way. Graetz and Wilde (1985) were among the first one who emphasized that aspect. Indeed, tax compliance is a social dilemma in which the individual interest contradicts the collective interest. The optimal strategy for an individual is to not cooperate. However, agents do not follow the optimal strategy predicted by mathematical models and cooperate most of the time as it has been shown in ultimatum game (Güth and al., 1982), market game (Roth and al., 1991), and also

dictator game (Forsythe and al., 1994). Subjects' reactions could also contradict rational predictions because they misperceived probabilities. Indeed, it has been shown in an experiment that subjects' tax compliance decrease immediately after they were audited. The authors called it the "Bomb crater" effect (Guala & Mittone, 2002; Mittone, 2006; Mittone & Kirchler et. al. 2009). They explain it mainly by taxpayers' feelings of safety just after an audit as if it cannot be experienced again during a short time period. It is caused by subjects' misperception of independent probabilities. Moreover, taxpayers who experienced an audit and pay fines may try to recover the money they lose in evading just after. The authors conclude that even if audits and fines are a powerful enforcement for taxpaying, it sets up an atmosphere of fear and distrust when it is better to enhance cooperation and trust at a certain point to make people more compliant by working on psychological variables.

Fiscal Psychology inductively examines the attitudes and beliefs of taxpayers in order to predict actual behavior (Hasseldine & Bebbington, 1991). A large field of research deals with the social representation of taxes which includes social norms, perceptions of fairness, individual and societal attitudes, etc. (Kirchler, 2007). The degree to which tax law is understandable by lay people and the interactions between the government (responsible for setting tax rates, gathering rates, and using tax revenue for the greater good) and the people are two more important subfields (Kirchler, Alm and Muehlbacher, 2012). Some specific topics have been widely studied. Among the most important there is fairness perception of taxes.

Fairness perception:

Since 1960, Schmölders recognized the importance of fairness perception from the taxpayer in the decision to comply (Kirchler, 2007). He focused on the perceived fairness of the exchange with the government in terms of public good and the comparison with other

citizens. Thereafter, a lot of studies have been done on fairness issues giving some contradictory results. These inconsistencies are caused by the heterogeneous sources of fairness perception used in the literature (Kirchler, 2007). Indeed, fairness perception is a large notion and it could be derived from the different criterion. The field of tax compliance research needed a unified framework which enables to compare empirical results. Wenzel (2003) proposed to apply a framework used to conceptualize fairness and justice issues in social psychology into this field. It distinguishes fairness perception on two axes. First at the individual and the group level (individuals care about how fair they are personally treated and also how their social group is treated) and second, there are three main sources of fairness perception it takes into account: distributive justice, procedural justice, and retributive justice (for a more detailed explanation and literature see Kirchler, 2007).

The first one is the most studied and it integrates three types of fairness dealing with the distribution of resources. It includes horizontal justice (distribution of taxes and resources between taxpayers of comparable income groups), vertical justice (distribution of taxes and resources across income groups), and finally the exchange justice (fairness of tax payments and governmental provision of public goods and taxpayers' participation).

The second one refers to the quality of interpersonal treatment, in this case between taxpayers and tax authorities, the quality of information related to tax law. For example, the feeling of being respected, that may be provided by the opportunity to express themselves, even if it doesn't directly influence the final decision, could make an individual perceive a high procedural fairness (Tyler, 1990).

The third one deals with reward and sanction. For instance, it has been criticized that tax law only punishes norm-breakers but does not provide positive reinforcement to those who comply voluntary (Falkinger and Walther, 1991). Moreover, sanctions have to be proportional

to the norm breaking and especially they must be fair, in the sense that no one could be untouchable. Indeed, the perceptions of social group above the law, which won't be punished in any case, make individuals feeling frustrated.

Norms (personal and social):

Schwartz and Orleans (1967) were pioneers in showing that unsurprisingly taxpayers' moral or ethics about taxes influences compliance. Other researchers also worked on similar explanations, as general honesty (Porcano, 1988) and taxpaying ethics (Reckers and al., 1994). Nevertheless, it is important to understand the origins of these personal values in order to influence them. Michael Wenzel (2004) called them personal norms and he showed that they are influenced by social norms when subjects identify with the group. In other words, he showed that conditionally on subjects' group identification, social norms have an indirect influence on tax compliance mediated by personal norms. His model is based on the Self-Categorization Theory (Turner, 1990) which suggests that the more the individual identifies with the group, the more he internalizes the social norm into a personal norm. Therefore, an individual who strongly identifies with a compliant group will be influenced to comply. Conversely, individuals who do not identify with the group are not influenced by the social norm and even more they tend to reject it as an expression of the non-identification with the group. This finding is also consistent with results we could expect based on the Theory of Planned Behavior (Ajzen, 1991). Indeed, these two theories could be complementary in the sense that they both underline the social influence of norms on individual specific behaviors and attitudes. However, they give different variable that could influence behaviors. On one hand, the Self-Categorization Theory includes some keys of understanding for the social influence the author called "Theory of Referent Informational Influence" (Turner and al., 1987). It shows that the more an individual identify with a group the more he integrates the social norms, beliefs and behaviors of the group since it enhances mechanisms of

depersonalization and self-stereotyping. On the other hand, Ajzen's theory of planned behavior proposed another model of the social influence on behaviors, on which we will focus on in the following section.

Psychological models involved in this research:

Theory of Planned Behavior:

This theory is the extension of the Theory of Reasoned Action from the same authors, and it underlined the plurality of factors influencing a behavior. It started by reporting that general attitudes as well as personality traits and other psychological constructs such as locus of control do not explain or predict specific behaviors enough. Therefore, it has been argued that situational factors play a role that decreases the observable influence of dispositional factors in specific situations. In order to limit the effect of situational influences on behaviors it has been proposed to use aggregate behaviors (Ajzen and al., 1974). This method works to confirm the effect of dispositional factor in influencing behaviors, but it does not enable to predict higher variance for specific behaviors in a given situation. Thus, he proposed these models trying to take into account the complexity of influencing factors on behaviors in order to explain more variance in specific behavior. Within the framework of the cognitive self-regulation, this theory gave the main model to study the relation between attitudes and behaviors. However, it is based on strict hypotheses. First, behaviors are intentional and reasoned. The individual thinks of the consequences of his behavior before to act in a certain way. It does not mean that the individual is rational. His reasoning could be biased but he tries to evaluate the outcome of the behavior through it. The intention towards the behavior is the most important because it is considered as the direct cause of the behavior. This intention mediates the effect of the attitude and the subjective norm on the behavior of the individual. The attitude is personal and is evaluated by the expected value of the behavior's consequence

that could be favorable or not. The subjective norm is social and corresponds to the perceived social pressure on the behavior's desirability. It is influenced by the normative beliefs (individual beliefs of the other's opinions) and the motivation to comply (individual's wish to follow the behavior of the reference group or person). The second hypothesis implies that the behavior is controlled by the individual. In other words, the individual is able and has the possibility to engage in the specific behavior. The authors propose that it is a notion close to the one of Bandura self-efficacy (1992).

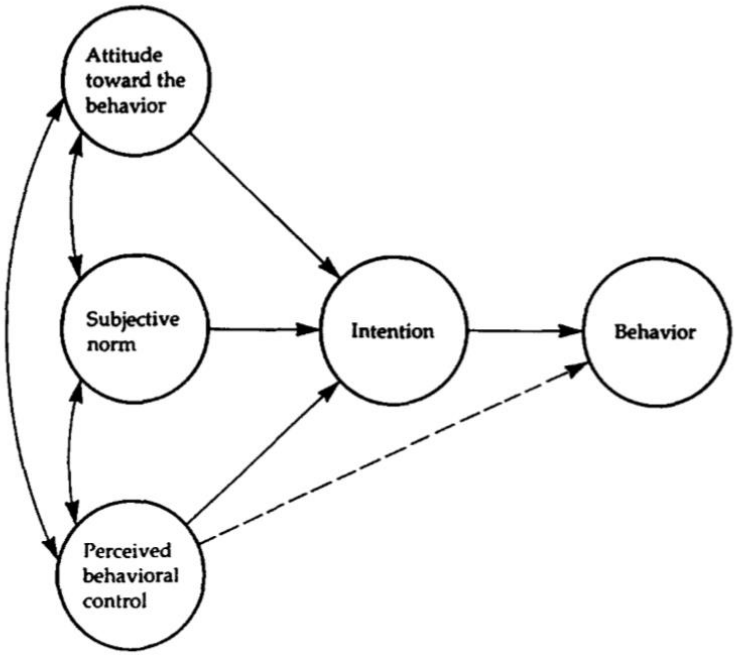


Figure 1: The Theory of Planned Behavior (Ajzen, 1991).

The Theory of Planned Behavior and the Theory of Reasoned Action have been explicitly built in order to predict a large variety of specific behaviors, and empirical evidences show that they actually do. Indeed, the theory of planned behavior generally explains 30% of variance in behavior, which is a strong prediction using few factors according to statistical criterions proposed by Cohen (1977, 1992) and other results in psychology. However, other models have underlined the social influence on individual attitudes.

Model of the Architecture of Social Thought:

From a larger point of view, Rouquette (1973; 1998) proposed a Model of the Architecture of Social Thought, which includes social representations as a modality of expression of it. He underlined the consequences caused by the "social thought", but also the origins of it. The model gives an overview of determinants of behaviors from the more general and stable, shared at the societal level, as an ideology, to the more individual and unstable, as attitudes.

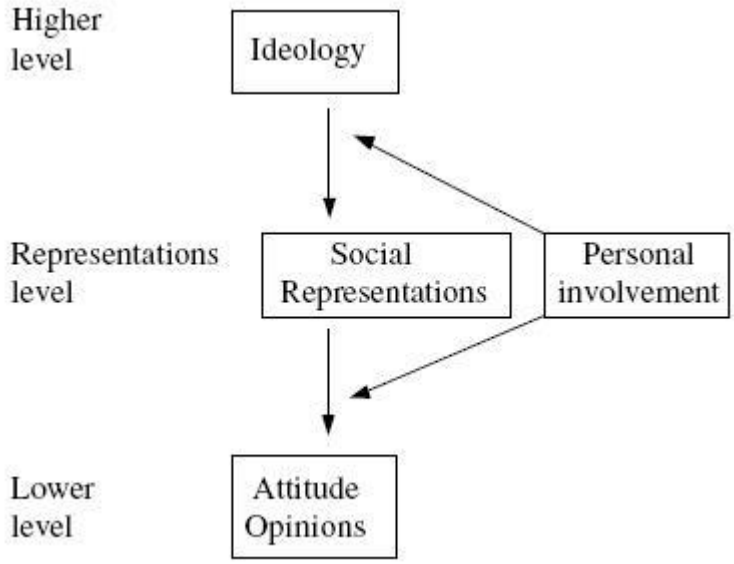


Figure 2: Hierarchical Organisation of Social Thought (Wolter, Gurrieri and Sorribas, 2009).

Social thought implies different levels, and the larger influences, the lower level. The social representations are thus influenced by social and cultural variations, that we can observe within the History. Individuals and social groups then represent the world through it. This mechanism of social representation influences their judgments of the reality and accordingly their attitudes and finally their behaviors.

In short, the model of social thought contradicts the rational thinking hypothesis since it implies that people do not use a scientific way of reasoning based on hypothetico-deductive rules independent from the social context (Tavani, 2012). Indeed, their reasoning is affected

by their representation of the reality, influenced by their cultural values, the social group they belong to, the practice they have with the object, and their general background (knowledge, etc…).

When working on tax compliance, it seems interesting to study the perception of taxes and how it has been built, taking into account a large vision of influencing level. Indeed, it is a behavior complex to explain; and also taxes are a topic of national interest, which makes it relevant to study the influence of cultural values, at a societal level. They are general and shared at a large level, like an ideology but are the basis of the social representations which influences attitudes at the individual level.

Social representations (definition, functions and origins):

The concept of social representation has been formalized, in these terms, by Moscovici (1961), who adapted the notion of "collective representations" and "individual representations" (Durkheim, 1898). In Durkheim's theory, the former interested sociologists much more since they reflect religions, mythologies, and so on. They are shared by the entire society and are stable in time, unlike the latter which are subject to considerable variations, specific to each as sensations and thus interested psychologists much more. Moscovici's notion of social representations is in their intersection and thus between sociology and psychology. Indeed, he adapted the notion to the characteristics of diversity and changes of modern society confronted to a large quantity of information and increasing communication fluency, making constant changes in people attitudes and opinions, which are hardly shared by the whole society. Social representations are implied in a double movement of determination. They determine individual's thought and behavior, but are also influenced by their actions. It means that they are quite stable but might change across time. Furthermore, they are different according to the social group who share them but they also participate in

defining them because they express their limits and identity through the sense they attribute to their social representations (Abric, 1994). In this view they are not shared by the entire society and reintroduce the notion of social split in the debate. They are based on two underlying process:

- Objectivation: diminishing the excess of sense giving a meaning to the abstract object. This mechanism has a cognitive function of materializing an idea and thus reduces the cost of reasoning in term of resources consuming (Jodelet, 1984).
- Anchoring: representing an unclear notion into a known framework or an existing system of knowledge. Moscovici underlined that this process participates to the object reconstruction in order to insert it in the individual knowledge. "Making known the unknown"; the individual rebuilds the object of the representation and changes its meaning according to his culture and values which are often shared with his reference group. Indeed, social representations are socially elaborated in function of experiences, traditions, education and social communication. They are shared in the social groups which expresses its limits and identity by the sense it gives to them. Doing so, it creates a practical knowledge that participates to the social elaboration of our reality. Thus, we should consider their influence on choices.

Since the beginning, the notion of social representations has been defined as cognitive and social (Moscovici, 1961). The definition has been implemented by the distinction of the product and the process (Abric, 1994). The cognitive process of representation is universal when its product or the result is social and influenced by the culture and the values.

Abric (1976) also proposed a structural approach of social representation which is fundamental from a methodological point of view. He has been inspired by Heider (1927) and Asch (1946) and considers that the social representations are structured and organized by few

cognitions and beliefs shared in a given social group. They carry a symbolic aspect allowing to give its entire meaning to the representation and organizing it. These few elements constitute what the author called central core of the representation. He distinguishes it from the rest of the representation which he called the peripheral system. This theory aims to find regularities that characterize the process of formation and evolution of social representations. The author proposed that the central core is linked to the collective memory and the history of a group. It is consensual and is involved in the perceived homogeneity of the group. It is also stable and it thus resists to changes in the situation. From the beginning, Abric (1976, 1994) distinguishes two dimensions in the central core:

- Functional: this dimension is directly related to the social practices. It is activated when subjects have a practical or instrumental relationship with the object of the representation. In this case, they use practical knowledge instead of normative judgments.
- Normative: this dimension is activated when subjects do not have an instrumental relationship with the object of the representation which is filled with values, ideological beliefs and norms coming from History.

These are important findings of the composition of the central core but it is fundamental to present also the function of it. Indeed, the central core determines the meaning (generating function) of the social representation and also its organization (organizational function).

The elements that are not inside the central core are thus considered to constitute the peripheral system. This system assumes the function of embodiment, regulation and defense of non-negotiable knowledge generated by the central core of the representation. It enables the adaptation of the representation protecting the elements of the central core from external elements that could discuss its consistency. The elements of the peripheral system are thus the

interface between the central core and the external elements. They constitute the major part of the representation, the more concrete and accessible part of it (Abric, 1994).

The measures researchers use most frequently is the hierarchical evocation which consists in a task of free verbal association. Abric (1994) claims that it is the best one to catch the elements contain in a representation. This method has been implemented by Vergès (1992) and Roussiau (2002), who proposed to cross the measures of the items' frequency of apparition as an indicator of salience and their mean ranking as an indicator of the importance that subjects give to it.

Moreover, the notion of cultural values is also interesting for our purpose, since it could influence the social representations from a higher level, such as a societal ideology, according to the Model of the Architecture of Social Thought.

Cultural Values:

"Cultural values represent the implicitly or explicitly shared abstract ideas about what is good, right, and desirable in a society" (Schwartz, 1999). They could explain the societal organization and changes across History because they are the basis of motivation and partly drive attitudes and behaviors. There is a lot of research and models of cultural values (Inglehart, 1997; Rokeach, 1973; Schwartz, 1992) and thus a lack a consistency. The aim of Schwartz research is to claim with a model empirically validated to give a framework for basic cultural values shared in every society. Indeed, values are distinguished by their social goal or the motivation that is expressed by the value. Following the theory, values are probably universal because they are based at least on one of the three main needs of the human existence. These needs are: satisfying biological needs, allowing the social interaction and ensure the survival of group. His model is based on six characteristics of the values that are identified by the principal authors working on it (Schwartz, 2005).

It makes him identify ten basic values and describes the dynamic of oppositions and compatibilities between them. He came up with a circular model of ten basic values that are grouped in four categories depending on their orientation on two axes. The ten values are: self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, benevolence, and universalism.

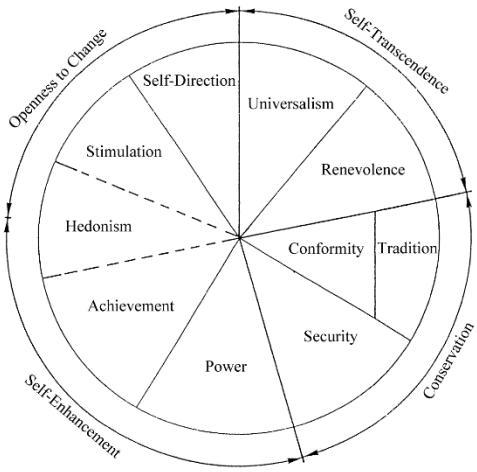


Figure 3: Theoretical model of relations among motivational types of values, higher order value types, and bipolar value dimensions (Schwartz, 1992).

In building this model the first step was to validate the universality of the basic values structure. In order to validate the theory, the Schwartz Value Survey has been filed in by 64271 respondents from 233 samples in 68 nations on each continent between 1988 and 2002 (Schwartz, 1992; 2005). The data analysis using Pearson correlations and Similarity Structure Analysis gives a very similar structure of basic values for every sample. Another questionnaire on the same model the Portraits Values Questionnaire has been used to confirm this finding on 35 161 respondents from 20 nations.

The items positions on the space given by the SSA confirm the hypothesis of the content and the circular structure of values' relations. These results show that the ten values structured in circle, in order to underline compatibilities and oppositions, are similar in many cultures; the

more general structure given by grouping compatible values is almost universal. They have been obtained from two different measures and confirmed from a statistic point of view by factorial analysis.

Then the author studied the relative importance of these values across societies and also within them. There is a large inter-individual variation in term of the importance given to the ten basic values but at the societal level there is a similarity of the values hierarchy. The order of values was similar from one sample to another. The author claims that this consensus is probably caused by the common nature of human society and the function of basic values, which is to maintain the society cohesion.

Benevolence, universalism and self-direction arrive in first position. Security is the fourth, conformity is the fifth, hedonism is the sixth and achievement is the seventh. Tradition normally is the eighth and stimulation and power are the last one.

Nevertheless, each society distinguishes itself by the relative importance given to the ten values. This hierarchy gives a referential to compare the results of each sample. Indeed, it could be determined for each sample that some basic values had a relatively high or low rating.

Finally, regarding the previous literature on tax compliance and the common sense, we also selected different scales which we thought were useful; in order to better understand the motivations toward compliance. These are presented in the following sections.

The Grateful Orientation scale:

The grateful orientation, also known as "dispositions to gratefulness" (Shankland, 2009), is considered such as a behavior which acknowledges and responds to life events by positive emotions underlining: appreciating and being grateful. Correlational and experimental studies

have shown that people having a high level of disposition to gratefulness tend to behave in a pro-social way and to think that the world is fair towards them. The most commonly used scale to measure the disposition to gratefulness is the Gratitude Questionnaire in 6 items (GQ-6; McCullough, 2002), which enables to get a score of grateful orientation by adding the points of the six items. After evaluation, the alpha for this questionnaire was 0.82. The convergent validity was shown through positive correlations with scales measuring pro-social behaviors.

The Belief in a Fair World scale:

The Belief in a Fair World (BFW) is considered as a "positive illusion" (Taylor and Brown, 1988) whose function is to allow individuals to commit themselves towards goals which need every effort to be followed with positive results. Believing in a fair world and believing that we get what we deserve (Hafer and Bègue, 2005) increase the feeling of event control and give meaning to what we did. There are two BFWs: the BFW for oneself, which give meaning to life (Bègue and Bastounis, 2003), and the BFW for the others, which is correlated with the trust in other people as well as with depreciating people in an under-privileged social situation and with a low intention of helping them (Bègue, 2008). Lipkus and al. (1996) have elaborated and validated a two-dimensional scale which makes a distinction between the BFW for oneself (8 items) and the BFW for the others (8 items). Validation studies showed a good internal consistency ($\alpha = 0.84$) and total scores may be computed by adding the eight items scores of each sub-scale. Some studies use a shorter scale of three items for the BFW for oneself and three items for the BFW for the others selected because of the high correlation they have with the global scale. This shorter scale has been approved for its quality and its utility for a French context (Bègue, 2008).

In-Group Identification:

In order to understand this scale, a term must be understood as well: the word entitativity which was invented by Campbell (1958) to talk about "the degree of having the nature of an entity, of having a real existence". Castano and al. (2002) assumed that "the entitativity of the in-group moderates the level of identification with the in-group." High levels of entiativity lead to a strong identification with the in-group, while low levels decrease the identification. A first 20-items scale was tested with the European Union as the reference group. We decided to use the shorter scale of six items and to use the nation as the reference group, since its combined effect with other variables we use has already been shown (Wenzel, 2004; Boeck and al. 2013; Webley and al. 2001).

Personal Involvement Inventory:

According to Zaichkowsky (1985), involvement has three factors: the characteristics of the person, the characteristics of the stimulus, and the characteristics of a situation. From this concept, a 20-item scale was designed, known as the Personal Involvement Inventory, in order to measure the "motivational state of involvement". However, even if it was reliable, it has been criticized for being redundant, and a 10-item scale was created, with a Cronbach alpha of 0.9. It was used for advertising surveys. We choose to use this 10-items version for our questionnaire, and instead of advertising, we turned the items towards politics.

Hypotheses:

The aim of this research is to give additional understanding of why people pay taxes, integrating the framework of previous research on tax compliance in behavioral economics (Alm, 1991). For a deeper understanding of the intention toward compliance with taxes, it seems interesting to analyze some socio-cognitive mechanisms behind this decision. The

Model of the Architecture of Social Thought suggests investigating on different levels of psycho-social influences on behaviors (Rouquette, 1973; 1998), as well as the Theory of Planned Behaviors (Ajzen, 1991), and the Theory of Referent Informational Influence (Turner and al., 1987).

This research is based on these three models, since they underlined different levels of social influences on behaviors and claimed with different variables. Some have already been used in tax compliance researches as the identification with the national group, the individual and social norms (Wenzel, 2004; Boeck and al. 2013; Webley and al. 2001), as well as the social representations (Kirchler, 2003) and the perception of fairness (Schmöldersn, 1970; Lévy-Garboua and al., 2005). We thought that it was interesting to use these variables and to implement our model by the affect generated by the social representations, the cultural values, the grateful orientation and the political involvement, in order to explain some other motivations involved in the intention toward compliance.

Indeed, to operationalize the dependent variable we used the Tax Compliance Inventory (Kirchler and al. 2010), which has been designed on the basis of the Theory of Planned Behaviors, since it measures the intention toward compliance and his ability to predict real behaviors. In the framework of the Theory of Planned Behaviors the individuals' intentions are a strong predictor of behaviors and this relation had been tested in experiments for this scale (Kirchler and al. 2010; Nichita, 2012). Furthermore, this inventory measures the individuals' intentions to comply and not to comply with taxes. It also takes into account different motivations behind these intentions, since individuals can comply because they think it is a duty or fearing the sanction whether they do not. In the second case, they will probably cheat if they feel that it is unlikely to be caught. Moreover, the inventory also measures two different intentions of non-compliance, since individual could avoid taxes without breaking

the law or evade taxes which is illegal and thus could be sanctioned. This gives four different constructs that could be related or not from the motivations leading the intention.

From these considerations we can derive the following hypotheses. Since the individual norm reflects the individuals' general honesty or integrity toward taxes, it should influence the four dependent variables. Individual norm toward taxes should also be influenced by the social norm moderated by the national identification. Therefore, the social norm could be related to the dependent variables in the same way as the individual norm, but with a weaker strength; and the national identification also with a reversed pattern.

(H1) The individual norm and the social norms will be negatively related to voluntary compliance and positively related to enforced compliance, tax avoidance and tax evasion.

(H2) High levels of national identifications should be positively related to voluntary tax compliance and negatively to the other three dependent variables.

From a higher level of social influence, regarding the model of the architecture of social thought, the cultural values should also influence our four dependent variables. We especially expect the self-transcendence factor to predict pro-social behavior and the conservatism factor to enhance the risk perception since it groups the values of security, conformism and tradition. Thus, self-enhancement and openness to changes should work in the opposite way of self-transcendence and conservatism as it is predicted by the original model (Schwartz, 2006).

(H3) Self-Transcendence should be positively related to voluntary compliance, and negatively to the other three dependent variables but especially with tax evasion, when self-enhancement should have the opposite pattern.

(H4) Conservatism and the perceived risk should be positively related to enforced tax compliance and negatively to the other but especially with tax evasion, when openness to changes should have the opposite pattern.

The other variables such as grateful orientation, Believing in a Fair World (or Fairness Beliefs), and political involvement should have the same pattern of relations with the dependent variables since we thought that they all play the same role on motivations toward compliance with a slightly differences. In this sense their combination could afford more details in the understanding of these intentions.

(H5) Grateful orientation, believing in a fair world, political involvement, and the affective scores of the social representations of taxes should be positively related to voluntary compliance and negatively to enforced compliance, tax avoidance and tax evasion.

We will also control for the effect of social variables since some of them are expected to have an effect. For instance, the most obvious expectations are that the nationality or the country of birth should be related to the national identification and thus to the dependent variables. Finally, the occupational sector could offer more possibility to evade and then could have effects on the social representations of taxes and the reported intentions toward compliance.

(H6) Being French and being born in France should be positively related to voluntary compliance and negatively to avoidance and evasion.

(H7) Being self-employed people should be positively related to evasion and enforced compliance.

Method:

Participants:

The data have been collected by an online questionnaire. It has been filled in by 237 voluntary participants. Nevertheless, only 170 of them completed the entire questionnaire. However, we choose to keep all the data because it gives a higher reliability to the scales, since they have few items, particularly regarding the alpha Cronbach coefficients (cf: section below on descriptive statistics). The total respondents' sample is composed by 117 women and 120 men aging between 19 and 80 (M: 31.4; SD: 13.3), and 49% have paid taxes before. Finally, 51% were students and 67% were workers.

Material:

The questionnaire has been built in order to measure all the variables presented in the above sections.

The dependent variables are the intention toward particular tax behavior. We used the Tax Compliance Inventory (Kirchler and Wahl, 2010) which includes 20 items measuring four clusters (5 items for each), involved in tax compliance intentions. These are derived from different motivations to comply and are summarized by the voluntary tax compliance, the enforced tax compliance, tax avoidance and tax evasion.

The independent variables are:

1. Social representations: four free verbal associations rated on a scale of affective value.
2. Fair world believers: two-dimensional scale distinguishing the beliefs in a fair world for oneself and for others. Each one includes 3 items (Bègue and Bastounis, 2003).

3. Grateful orientation or "dispositional gratitude": is a personality trait which has been measured by the Gratitude Questionnaire in 6 items (GQ-6; McCullough et al., 2002). It is the most frequently used on the matter and has been translated in French by Shankland and Vallet (2010).
4. Personal Involvement Inventory: has been measured with the 10 items scale of Zaichkowsky (1994), revised from the previous 20 items version (Zaichkowsky, 1985). The revised version has been applied to advertising; here it has been applied to political involvement.
5. Values: ten dimension of the Schwartz values model measured by the ten items of the Short Schwartz Value Survey (Lindeman and Verkasalo, 2005).
6. Subjective norms regarding tax behavior: have been measured by the 3 items scale of Wenzel (2004), which he called "Social Norms". His questionnaire is taken from the longer questionnaire of the Community, Hopes, Fears and Actions Survey (Braithwaite, 2001).
7. Group identification: six items measuring general group identification (Castano and al., 2002). Here the items have been turned to emphasize on the national identity.
8. Perceived risk regarding tax behavior: I adapted a 4 items scale from the longer one of the Community, Hopes, Fears and Actions Survey (Braithwaite, 2000).
9. Personal norms regarding tax behavior: have been measured by the 3 items scale of Wenzel (2004), which he called "personal norms". The scale has also been adapted from the longer questionnaire of the Community, Hopes, Fears and Actions Survey (Braithwaite, 2001).

Finally social and demographic variables were also measured in order to control their effect: gender, age, occupation (if student which discipline, if worker which work), whether the subject pays taxes or not, his nationality and birthplace.

Results

Descriptive statistics:

Dependent Variables:

The descriptive statistics for the Tax Compliance Inventory are presented in the table below:

Variable	Observation	Mean	min	max	standard deviation	number of items	alpha Cronbach
voluntary tax compliance	170	24.9	5	35	7.013638	5	0.8439
enforced tax compliance	170	15.98824	5	35	8.049395	5	0.8978
tax avoidance	170	19.58824	5	35	7.060674	5	0.7360
tax evasion	170	16.57059	5	35	8.220933	5	0.8824

Once this table is taken into account, the semantic meaning of the four factors' scores is presented since they are quite different:

High scores in voluntary tax compliance mean that subjects have the intention to comply because they think it is a civic duty, when high scores for enforced tax compliance mean that subjects intend to comply because they think they will be audited otherwise. For tax avoidance, high scores mean that subjects reported that they would probably avoid taxes if they can. However, it measures how likely it is for subjects to optimize their tax burden without breaking the law or doing illegal actions. Finally, high scores in tax evasion mean that subjects reported that they would probably evade taxes if they have the opportunity, even if they break the law.

Independent Variables:

Cultural values have been measured by the SSVS and treated as the original model. Therefore, the ten values have been grouped into four factors. Within each factor inter-

correlations between values have been tested by the alpha Cronbach (α) indicator. Universalism and benevolence are grouped in a self-transcendence factor (α = 0.74) which is opposed to the self-enhancement factor which contains power and achievement (α = 0.69). Hedonism, stimulation and self-direction are grouped in an openness to change factor (α = 0.67) which is opposed to the conservatism one which contains conformity, security and tradition values (α = 0.83).

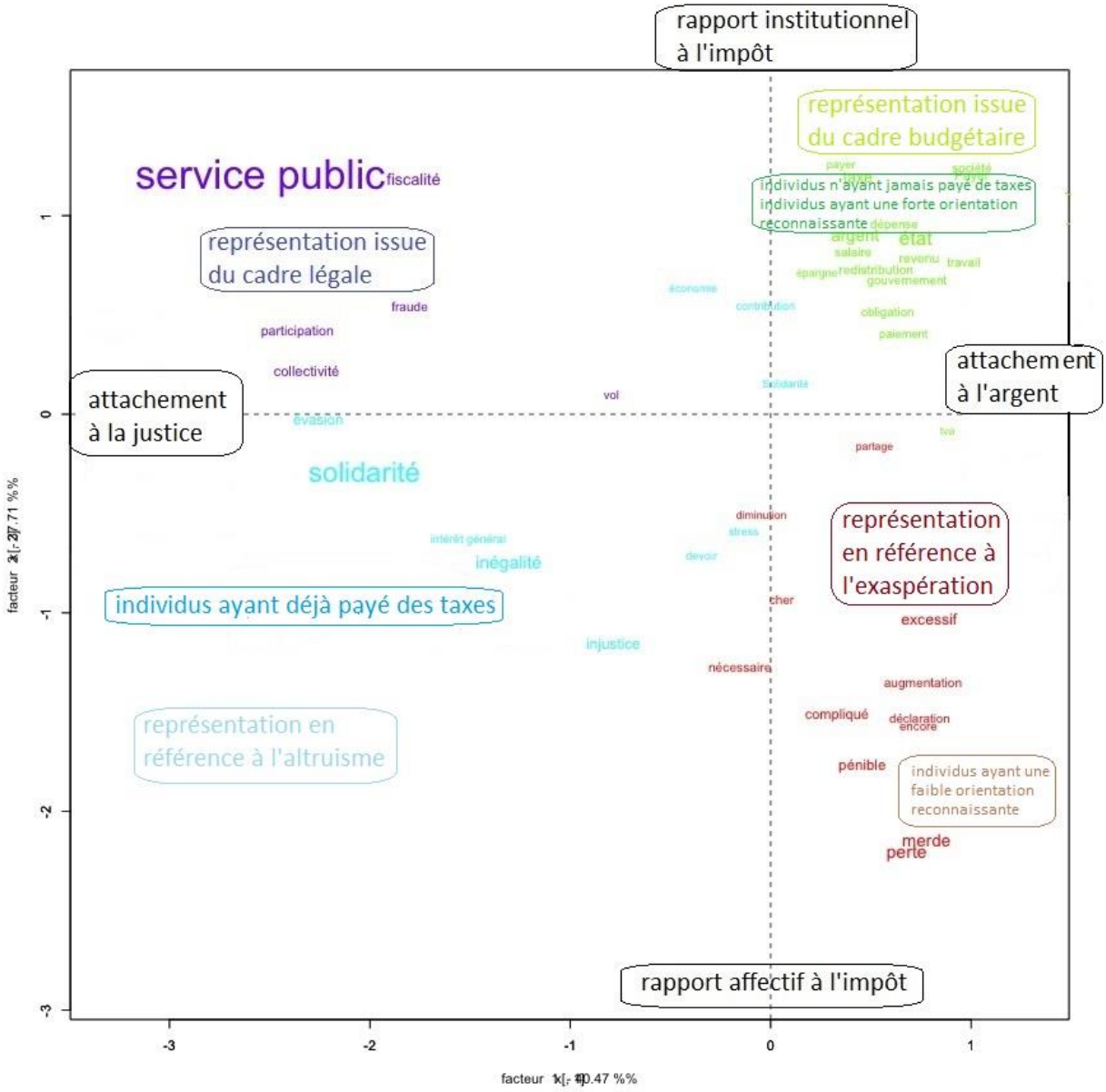
Variables	observations	Mean	min	max	standard deviation	number of items	alpha cronbach
Fair world believers	214	24.86916	6	39	5.964817	6	0.768
for oneself	214	14.3271	3	21	3.308194	3	0.677
for others	214	10.54206	3	20	3.490511	3	0.662
Grateful orientation	214	31.0514	12	42	4.97526	6	0.624
Openness to change	196	11.55102	0	15	2.734856	3	0.67
self-enhancement	196	5.795918	0	10	2.324713	2	0.688
Conservatism	196	8.897959	0	15	3.736143	3	0.83
self-transcendence	196	8.413265	0	10	1.885879	2	0.737
Subjective norm toward taxes	95	13.25128	6	21	3.066856	3	0.316
group identification	191	27.67016	6	42	7.671622	6	0.814
perceived risk	189	199	0	377	81.56918	4	0.5102
Individual norm toward taxes	183	8.612022	3	19	3.919137	3	0.603
political involvement	183	40.78142	10	70	12.65937	10	0.869

High scores in individual norms toward taxes reflect that subjects thought it was acceptable for themselves to evade taxes when for social norms high scores reflect that individuals perceived a high tolerance of evasion in the nation. In this sense, these variables are reversed compared with the normal expectations, since they measure how subjects are dishonest instead of honest. We thus think that is the reason why their alpha coefficient is low especially for the social norms which could have been misunderstood by subjects. The other variables are more easily understandable since high scores in grateful orientation mean that subjects are

grateful for their conditions of living. For the two scales of fair world beliefs, it means that subjects strongly thought that they and the others had what they deserved, and so on.

Social representations have been measured by the free verbal association method. Subjects produced four words they related to taxes in a hierarchical order and rated them on a scale of affect. In this research the analysis of social representations of taxes has been oriented in showing the oppositions of classes of words. Thus, the words have been classified by the Descending Classification Method (Reinert, 1983, 1987, 1993), with the Alceste software, which has been used in Social Representations research to run the lexicometric analysis of the data (Masson and Moscovici, 1997). It analyses the contingencies in the words associations regarding the Chi-square. It starts from the whole corpus and splits it in two classes that could be separated again, and so on. We choose to keep four classes. Then a correspondence factor analysis (Benzécri, 1976) gives three factors explaining 100% of variance, but we took the first two since the third makes a three dimensional space. However, the two first factors explain 78% of variance which is good. We labeled the four classes of words resulting from the DHC in function of their contribution to the factors and above all the meaning of the words they contained. The four classes of words have been called frustration, sympathy for others, legal framework, budgetary framework, and the factors resulting from the CFA have been labeled attachment to money and attachment to justice for the first and the second is institutional relation with taxes and affective relation with taxes (cf: graph below in french). We then wondered if some groups of subjects have produced different associations of words that could be related to the four classes. Results showed that subjects who never paid taxes had a budgetary representation of taxes, when those who paid taxes have produced more words from the sympathy for others class. Moreover, splitting subjects in two groups around the median of the grateful orientation variable showed that grateful subjects have a budgetary

social representation of taxes when the less grateful produced words associated with the frustration class.



Analytical statistics:

First of all, it was important to test the relations between the dependent variables. The internal and external validity of the Tax Compliance Inventory has been tested by the authors. The first implied that the inventory worked in the same way for different samples (Kirchler and al.

2010) and for the second that the questionnaire really predicted actual behaviors (Kirchler and al. 2010; Nichita, 2012). Both have been confirmed.

Thus we tested our results since they should work as it was predicted by the original model. Therefore, we checked the correlations between the four constructs. It gave some significant correlations. Between voluntary compliance and the three other constructs (enforced tax compliance, tax avoidance and tax evasion) they were all negative but not significant only for tax avoidance. Between enforced tax compliance, tax avoidance and tax evasion correlations were significant and positive (cf: annexes: table 1). It gave us an understanding of the relationships between these constructs and these results were expected given the semantic meaning of the scales (cf: section above). However, since we were interested in analyzing the motivations behind these semantic differences of the constructs we studied them separately.

Results on voluntary compliance:

First, we analyzed the voluntary tax compliance with the independent variables we thought could determine it. This intention to comply was hypothesized to be influenced by degree to which the subjects agree with taxes and rather than the enforcement. Therefore the subjects' perceived risk should not be related to this dependent variable. Indeed, results confirmed it since the perceived risk was not significant in a simple linear regression on voluntary tax compliance, even when it was the only predictor ($p = 0.962$; $R^2 = 0$). Moreover, we expected the individuals' affects on taxes, its grateful orientation, beliefs toward fairness, national in-group identification, political involvement and finally self-transcendence value to be positively related to the voluntary tax compliance scores; when the individual and social norms were expected to be negatively related to it. Results confirmed it, looking at the coefficient of these variables, in the regressions. Indeed, it was quite unsurprising that voluntary tax compliance increases with subjects' positive affect on taxes, high scores on grateful orientation which has been found to predict pro-social behaviors (Lyubomirsky,

2001), and also high scores on fairness beliefs, national identification, political involvement and self-transcendence. We also found that regressions combining all the variables together did not work especially for grateful orientation and fairness beliefs. Therefore we tested if the variables which were not significant had to be dropped. Indicators showed that these variables were significant. Then we looked for problems of colinearity, since the previous surveys showed that grateful orientation predicted fairness beliefs (Lyubomirsky, 2001).

At first, we used simple correlations (cf: annexes: table 2). It gave a strong and significant correlation between fairness belief for oneself and grateful orientation ($p < 0.001$; $r = 0.46$). Since, this correlation was not extremely high we ran some linear regression in order to measure the explained variance (cf: annexes: table 3). Results showed that the grateful orientation had a positive and significant effect on fairness belief in general and especially for oneself, explaining 21% of variance, which is a lot ($\beta = 0.3$; $p < 0.001$; $R^2 = 0.21$). Then, we separated them into different regressions on the dependent variables in order to avoid problems of colinearity, even if it means that we could not control for their isolated effect.

Finally, we tested the effect of the social and demographic variables. The only social variables that had an effect were age, level of studies and whether subjects have been paying taxes before. However, some of these were significant only when we tested their effect on the voluntary compliance only without the other independent variables. Results showed that subjects that have been paying taxes before appeared more motivated in voluntary compliance, as well as those with higher levels of studies. Conversely, the age had a negative effect which was unexpected. We then tried to control for the effect of these social variables in the regressions with the other independent variables, but it was not significant anymore. Thus, we tested the effect of the social variables on the independent variables in order to check whether there were correlated. Since there were no correlations we only kept the one which remained significant, which is whether subjects have been paying taxes before or not.

It gave the regressions modeled below in which every independent variable was significant (at least $p < 0.05$). The one with social variable is presented only for additional information, since it explained a quite large variance, even if only one effect remained significant when we controlled for the other independent variables. Every table of the following regression may be found in annexes (from table 4 to 7).

Regression 1: $Y\ VoluntaryCompliance = \beta_0 + \beta_1.\ GratefulOrientation + \beta_2.affect + \beta_3.IndividualNorm + \beta_4.Self\text{-}Transcendance + \beta_5.PoliticalInvolvement + \varepsilon$

Regression 2: $Y\ VoluntaryCompliance = \beta_0 + \beta_1.FairBeliefsOneself + \beta_2.FairBeliefsOthethers + \beta_3.IndividualNorm + \beta_4.Self\text{-}Transcendance + \beta_5.PoliticalInvolvement + \beta_6.TaxesPaidBefore + \varepsilon$

Regression 3: $Y\ VoluntaryCompliance = \beta_0 + \beta_1.FairBeliefsOneself + \beta_2.FairBeliefsOthethers + \beta_3.IndividualNorm + \beta_4.Identification + \beta_5.PoliticalInvolvement + \beta_6.TaxesPaidBefore + \varepsilon$

Regression 4: $Y\ VoluntaryCompliance = \beta_0 + \beta_1.Age + \beta_2.StudiesLevel + \beta_3.TaxesPaidBefore + \varepsilon$

These models worked well since the explained variance is quite high (regarding the R^2 indicator, Regression 1 explained 23.65% of variance; Regression 2 explained 27.5 %; Regression 3 explained 27.4 %; and Regression 4 with the social variables explained 20.9% of variance).

Results on enforced tax compliance

Secondly, we analyzed the enforced compliance with the independent variables we thought could determine it. We hypothesized that this intention to comply, because of the enforcement, was driven rather by the fear of control which could be either social or by the tax authorities. In other words, it should be something external to the individual that drives his behavior instead of an internal force as the consciousness. We also thought that the only internal force which could increase enforced compliance should be subjects' beliefs toward fairness. In this sense, we thought that subjects would be mainly influenced by their perception of the others. This influence has been operationalized by the perceived social

norms toward taxes, subjects risk perceptions of cheating on taxes and also their scores on conservatism which regroups values of conformity, tradition and security. We also tested the individuals' norm toward taxes since it should be related to every kind of motivations and the social and demographic variables to control their effects.

Results of regressions showed that the perceived risk, the social norm, the conservatism value, believing in fairness oriented to others and the individual norm had a significant (at least: $p < 0.05$) and positive effect on enforced tax compliance. However, the result for the social norm was surprising since we expected a negative relation rather than a positive. It was also unexpected that fairness belief worked only for the scale oriented on others. This gave the regression below which worked quite well since it explained 18.3% of variance regarding the overall R^2 estimator. Every table of the following regression may be found in annexes (table 8 and 9).

Regression 5: $Y\ EnforcedCompliance = \beta_0 + \beta_1.PerceivedRisk + \beta_2.FairBeliefsOthers + \beta_3.SocialNorm + \beta_4.IndividualNorm + \beta_5.Conservation + \varepsilon$

We also wanted to test the effect of Grateful Orientation and the individualism but we did it in another regression since there was the problem of colinearity presented before.

Regression 6: $Y\ EnforcedCompliance = \beta_0 + \beta_1.PerceivedRisk + \beta_2.Self\text{-}Enhancement + \beta_3.GratefulOrientaion + \beta_4.IndividualNorm + \varepsilon$

This regression also explained 18.3% of variance in intention of paying taxes because of the enforcement. We also tested the effect of social variables and they did not have a significant effect on both the previous regressions.

Results on tax avoidance:

Thirdly, we analyzed the Tax Avoidance with the independent variables we hypothesized could influence it. This construct differs from the other two analyzed above, because it reflects an intention not to comply, as well as the next one which is Tax Evasion.

First of all we thought that the intention to avoid taxes could be influenced mainly by the perceived risk, the social norm and the conservatism value. Indeed, it should work as the enforced compliance in the sense that subjects did not want to comply but they do, since they thought they would be audited otherwise. In this case, we should have found also a significant relation with the individual norm. Indeed, subjects that did not think it was important to pay their taxes honestly, but also perceived a high risk if they don't, should report the intention of avoiding taxes, when it did not break the law. Results did not entirely confirm it because the perceived risk, social norm and conservatism were not significant on tax avoidance even when it was the only independent variable. However, the individual norm was significant and positively correlated to the intention to avoid taxes as it was expected. Then we added to the model the individualism value and the more salient words evocated during the social representation task which belong to the frustration class. Only two had a significant effect. Since the effect was consistent with the expectations we kept them and it gave the regression below.

Regression 7: Y TaxAvoidance = β_0 + β_1.BeingWorker + β_2.IndividualNorm + β_3.Self-Enhancement + β_4.Inégalité + β_5.Voleur + ε

This regression explained 17.5% of variance in intention to avoid taxes according to the R^2 indicator (cf: annexes: table 10).

Results on tax evasion:

Finally, we analyzed the mechanisms which influenced the intention of evading taxes with the variables we thought could be implied in it. We hypothesized that a high level of perceived

risk should decrease the intention of evading taxes. This was confirmed by the results but only when the level of perceived risk was the only independent variable. In this case the subjects that had high scores in perceived risk reported intention to evade less. However, the explained variance was very small ($R^2 = 0.025$) and the effect was significant but not so much ($p = 0.04$).

We also thought that other variables could influence the intention to evade as the identification with the nation, the individual norm, the social norm, fairness beliefs and self-transcendence. Results have shown that perceived risk and social norm were not significant when we controlled for the other dependent variables. Nevertheless, the other variables explained a lot of variance. Then we dropped the perceived risk and the social norm and we added the more evocated words during the social representations task that entered in the frustration class (cf: section above) and also the openness value, since we found that it was significant. We also controlled for the social variables and found that only being a women, having paid taxes before and not being born in France had an effect. When we added them in the regression only being a women became non-significant. Therefore, we kept all the significant variables and it gave the regression below:

Regression 8: Y TaxEvasion $= \beta_0 + \beta_1.$*Identification* $+ \beta_2.$*IndividualNorm* $+ \beta_3.$ *FairBeliefsOneself* $+ \beta_4.$*Self-Transcendance* $+ \beta_5.$*Openness.* $+ \beta_6.$*NotBornInFrance* $+ \beta_7.$*TaxesPaidBefore* $+ \beta_8.$*Merde* $+ \beta_9.$*Voleur* $+ \beta_{10}.$*Compliqué* $+ \beta_{11}.$*Excessif* $+ \boldsymbol{\varepsilon}$

This model predicted very well the intention of evading taxes (cf: annexes: table 11). Indeed, the overall model where all the independent variables were significant ($p < 0.05$) explained 39.6% of variance in intention to evade ($R^2 = 0.396$). Since the R^2 indicator was very high, we also presented it at different steps of the regression. When we dropped the words of the social representations, it decreased to 0.289 and to 0.245 when dropping also the social variables. Then, we also saw that the effect of the individual norm alone was very high ($R^2 = 0.18$).

Discussion:

This research investigates in more details the psychological factors which undermined the motivations toward compliance with taxes. Some findings are interesting and original, others confirm the previous literature.

First of all, the different oppositions we found in the class of words resulting from the social representations of taxes enable us to give a clearer image of the multiple contains of this representations. We claimed with four main components labeled frustration, altruism, legal framework and budgetary framework. Then we found that subjects with high scores in grateful orientation had a more budgetary representation of taxes as well as those who never paid taxes before, when those with a low grateful orientation had more frustrations representations and those who have already paid taxes before have more an altruistic representation. The opposition trend of representations for subjects who have paid taxes was surprising at first. Indeed, we thought that subjects who experienced taxes would be more frustrated by it than those who never paid who can have an optimistic representation. Results showed the opposite pattern, which we cannot considered as an error of measurement because it was robust. Linear regressions models confirmed that experienced taxpayers intend to comply more voluntarily and to evade less than those who never paid taxes. We interpreted it as a reduction of the cognitive dissonance for the experienced taxpayer. It means that in this sample the majority of taxpayers convince themselves that their taxes serve the community and that they cooperate to the collective welfare, which is better than the opposite. This interpretation is far less intuitive than what we expected but it is also consistent with theories psychological Theory of Cognitive Dissonance (Festinger and al. 1959; Heider, 1946). On the other hand, results on the two groups of grateful orientation were expected especially for the group having low scores which has more frustrated representations of taxes. Indeed, it is quite

unsurprising that people who are particularly ungrateful do not perceived the amount of public good they receive and stay focused on what they lose.

The other results on linear regressions model showed that the relations between the constructs we used were more complex than it was expected. This contradicts some of the initial hypotheses but also give a more precise and complex understanding of the undermining motivations of the intentions toward compliance. Globally the initial hypotheses opposed the motivations of voluntary compliance and the other dependent variables and especially tax evasion. It was confirmed by the results of correlations, but some of their determinants in linear regression gave interesting details. Therefore, the common points and the differences must be discussed deeper.

First of all the individual norm has been found to be a strong predictor of the intentions toward compliance. Indeed, it is the only one that has an effect on every dependent variable even when we controlled for the other variables, as it was expected, and it has a very strong effect on tax evasion. The individual norm is the most consistent and the closer determinant of the intentions toward compliance since it reflects how much subjects think they have to be honest in filling their taxes. This construct measures something close to the general integrity as a personality trait but it differs in the sense that it is more precisely directed toward taxes and also it theoretically can be influenced by the social context more than the personality trait, which is fundamental in this research. Moreover, we also know that the individual norm is in turn influenced by the social norm and that this effect is increased by the national identification (Wenzel, 2004; Boeck and al. 2013; Webley and al. 2001), which is interesting in order to know how to work on it. However, these two variables do not work only through the individual norm, since they have a direct effect on some dependent variables even if it is less frequently significant. Indeed, the social norm alone showed an effect on every dependent

variable, except tax avoidance, but the effect remained significant only for enforced compliance when controlling the other independent variables.

This can be explained by the low internal consistency of the scale, but it could also confirm that often its effect is not significant anymore when controlling the individual norm. These considerations attracted our attention on the motivations of the enforced compliance, since it is the only dependent variable in which the social norm but also the perceived risk remained significant when controlling the other variables and the fairness beliefs work only for others. Therefore, we thought it could have meant something. It is consistent that people motivated in complying only because of the enforcement do not want to do it, but they are afraid of being caught. They have a low grateful orientation which means that they would not perceive how much they receive in public good. They also have high scores in fairness belief for others which means that they think the others receive what they deserve. These variables really oppose the enforced and the voluntary compliance, since they are significant only for them and the coefficient goes in the opposite directions, which is consistent.

That is why we thought interesting to interpret it as much as possible. First of all, it shows that individuals who pay because of the enforcement have an orientation and care about others. It is really likely since the social norm directly influence them and also the fairness beliefs, but only for others not for oneself, when both are always significant for the voluntary compliance.

One explanation could be that individuals who pay because of the enforcement do not think it is their civic duty to be honest in filling their taxes (Individual Norm), and according to them others think the same (Social Norm), but they perceive a high monitoring by the tax authorities (perceived risk). Thus, they pay their taxes, even if they think that others do not (Social Norm), because they think, or they convinced themselves, that the others receive what they deserve (Fairness Belief for Others), and would be sanctioned. This interpretation could

explain why the social norm's coefficient did not go in the expected direction. Indeed, we thought that the social norm could have an effect of increasing the risk perception because of the social pressure: individuals do not want to be caught in a society in which everybody agrees to pay. However, the kind of reasoning we drawn in our interpretation could explain it and it is also consistent with the last variable involved in enforced compliance which is the self-enhancement that regroups values of power and achievement. We think that this picture is consistent in the sense that there is a contradiction in this reasoning: these individual seems to care about the others in making their decision but only because they care about the others payoff to achieve better, which is consistent with the value of self-transcendence. Furthermore, a previous study has shown that belief in a fair world for others is correlated with depreciating people in an under-privileged social situation and with a low intention of helping them (Bègue, 2008), which is consistent and confirm our interpretation.

It is even more interesting to note that the only other intention toward compliance which had the same relation with self-transcendence value is tax avoidance, because we thought that these two dependent variables could be related. Indeed, tax avoidance is significantly correlated with tax evasion and enforced compliance, but since it does not have many similar predictors with them, we first thought it was a different construct driven by different motivation. Analyzing the meaning of the results we could think that it only has a quite similar motivation of enforced compliance, which is consistent because only these two dependent variables reflects the individuals' concern of respecting the law.

Finally, results shown the opposition we hypothesized between the motivations that undermined the voluntary compliance and tax evasion. Indeed, the results showed very similar significant independent variables related to these constructs. Self-transcendence, fair belief for oneself, national identification and having paid taxes before are common undermined motivations for both voluntary compliance and tax evasion. These independent

variables have opposite relations with these dependent variables, which is what we expected, except for the national identification which has the same positive effect on both, and even slightly higher for the tax evasion. This is really counterintuitive and thus we can only claim that its direct effect on the dependent variables is not interesting. Otherwise, self-transcendence, fairness belief for oneself and having paid taxes before were negatively related to tax evasion and positively to voluntary compliance, as it was expected. This confirms the interpretation of the reduction of the cognitive dissonance for those who have paid taxes before, as it has been discussed before. Moreover, the most frequent words of the frustration representation have been found to be related only to tax evasion, which is intuitive but interesting. On the other hand, the political involvement and the affect of the social representations are related only to voluntary compliance and positively. This is another expected result we wanted to underline, because it could be useful for the following practical application of this research.

Conclusion:

In sum, we may say that this research has shown that the four intentions toward compliance we studied could have complementary and opposed motivations. It has been found that voluntary compliance as opposed motivations than the enforced compliance and the tax evasion. It does not mean that enforced compliance and tax evasion have the same motivations, but they are not opposed either. These intentions have different driving forces. Finally, enforced compliance and tax avoidance seem to have similar motivations which are independent from those of the other two intentions.

These few understanding we tried to develop could bring their contribution to the construction of the knowledge of the society to think on how to improve the tax system. We wanted to underline the considerations we had in the introduction about how the government focuses on

enforcement strategies to improve compliance. Indeed, at the end of this study we can only claim that it is not the only strategy and that it might be counterproductive at some point. We worked only in France, which is a Western country with relatively high compliance rates compared with others. Then the considerations we make are only relevant for comparable situations. However, it seems that people who are motivated to pay only because of the enforcement are probably also motivated to avoid taxes. Then governments try to work on the law in order to limit the possibility to avoid taxes. This strategy is rational, but doing so, the authorities play the cops and robbers game. Another strategy could be to work on changing the social representations of taxes. Indeed, important surveys have shown that it is an efficient way of solving societal problems. For instance, initially the AIDS was represented as the "gay cancer". Hopefully it has evolved thanks to years of advertising campaigns and informing the population. This way of educating people, to get them to know how it works, made them change their behaviors towards this new phenomenon. So, educating people to get them to know what taxes are really about could make them change their behavioral response to it. Framing taxes in a more cooperative way could be a start since we saw that grateful individuals have a more positive representation of taxes and comply more voluntarily. A way of doing so could be to underline that schools, hospitals and other public goods of the daily life, which are fundamental for the welfare state, exist thanks to taxpayers. Indeed, involving people could have effect since it has been shown that political involvement is related only to voluntary compliance. This is not necessarily costly but it is hard to work on; and as the last scores of abstention have shown, this is a societal problem nowadays. These two variables are interesting together, since it shows that individuals need to be involved to be grateful. An idea could be to bound taxpayers with their cities by letting them know how their money was useful, as the charities and crowd founding do. Finally, gratifying taxpayers and even more

those who pay a lot could be easy to improve and might have effects as it has already been underlined in previous research (Falkinger and Walther, 1991).

References:

Abric, J.-C. (1976). Jeux, conflits et représentations sociales. *Thèse de Doctorat d'Etat de l'université d'Aix en Provence.*

Abric, J.-C. (1987). Coopération, compétition et représentations sociales. *Cousset: Delval.*

Abric, J.-C. (1994). (Ed.), Pratiques Sociales et Représentations. *Paris: Presses Universitaires de France.*

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational behavioral and human decision processes*, 50, 179-211.

Allingham, M., Sandmo, A. (1972). Income Tax Evasion: A Theoretical Analysis. *Journal of Public Economics*. 1: 323-338.

Alm, J. (1991). A perspective on the experimental analysis of taxpayer reporting. *The Accounting Review*, 55(3), 577–93.

Alm, J., McClelland, G. H., and Schulze, W. D. (1992). Why do people pay taxes? *Journal of Public Economics*, 48(1), 21–38.

Asch, S. E. (1946). Forming impressions of personality. Journal of Abnormal and Social Psychology, 41, 258-290.

Bandura, A. (1992). A social cognitive approach to the exercise of control over AIDS infection, in R.J. Di Clemente (Ed.), *Adolescents and aids: A generation in jeopardy*. *Newbury Park, CA: Sage.*

Bates, R. H., Lien, D. (1985). A Note on Taxation, Development, and Representative Government. *Politics & Society*, 14, pp 53-70.

Becker, G. S. (1968). Crime and punishment: An Economic Approach. *Journal of Political Economy*, 76, 169-217.

Bègue, L., Bastounis, M. (2003). Two spheres of belief in justice. Extensive support for the bidimensional model of Belief in Just World. *Journal of Personality*, 71, 435–463.

Benzécri, J.-P. (1976). L'Analyse des Données: 1 La Taxinomie, *Paris, Dunod*

Benzécri, J.-P. (1976). L'Analyse des Données: 2 L'Analyse des correspondances, *Paris, Dunod*

Bocquet, E. (2012). Commission d'enquête sur l'évasion des capitaux et des actifs hors de France et ses incidences fiscales - fait au nom de la *Commission d'enquête sur l'évasion des capitaux et des actifs hors de France et ses incidences fiscales*, 673.

Braithwaite, V. (2001). The Community Hopes, Fear and Actions Survey: goals and measures. *Centre for Tax Integrity System Working Paper 2*, Australian National University.

Campbell, D. T. (1958). Common fate, similarity, and other indices of the status of aggregates of person as social entities. *Behavioural Science*, 3, 14–25.

Castano, E., Paladino, M-P., Coull, A., Yzerbyt, V. Y. (2002). Protecting the ingroup stereotype: Ingroup identification and the management of deviant ingroup members. *British Journal of Social Psychology*, 41, 365–385.

Cohen, J. (1977). Statistical power analysis for the behavioral sciences (Rev. ed.). *New York: Academic Press.*

Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159.

Dubin, J. A., Wilde, L. L. (1988). An empirical analysis of federal income tax auditing and compliance. *National Tax Journal*, 41, 61-74.

Durkheim, E. (1898). Représentations individuelles et représentations collectives. *Revue de métaphysique et de morale*, 6, 273-302.

Edlund, J., Johansson Sevä, I. (2012). Exploring the something for nothing syndrome, confused citizens or free riders? *UMEA Universitet, Department of Sociology, Working Paper*, 2.

Falkinger, J., Walther, H. (1991). Separating small and big fish: the case of income tax evasion. *Journal of Economics*, 54(1), 55-67.

Falkinger, J., Walther, H. (1991). Rewards versus penalties: on a new policy against tax evasion. *Public Finance Quarterly*, 19(1), 67-79.

Festinger, L., Carlsmith, J.M. (1959). Cognitive consequences of forced compliance. *Journal of Abnormal and Social Psychology*, 58(2), 203–210

Forsythe, R., Horowitz, J. L., Savin, N.E., Sefton, M. (1994). Fairness in Simple Bargaining Experiments. *Games and Economic Behavior*, 6, 347-369.

Friedland, N., Maital, S., Rutenberg, A. (1978). A simulation study of income tax evasion. *Journal of Public Economics*, 10, 107-116.

Gahvari, F. (1989). The nature of government expenditures and the shape of the Laffer curve. *Journal of Public Economics*, Elsevier, 40(2), 251-260.

Graetz, M. J., Wilde, L. L. (1985). The economics of tax compliance: Fact and fantasy. *National Tax Journal*, 38, 355-363.

Guala, F., Mittone, L. (2005). Experiments in economics: external validity and the robustness of phenomena. *Journal of Economic Methodology*, 12(4), 495–515.

Güth, W., Schmittberger, R., Schwarze, B. (1982). An Experimental Analysis of Ultimatum Bargaining. *Journal of Economic Behaviour and Organization*, 3, 367-388.

Hafer, C. L., Bègue, L. (2005). Experimental research on Just-World Theory: problems, developments, and future challenges. *Psychological Bulletin*, 131, 128–167.

Hafer, C. L., Bègue, L., Choma, B. L., Dempsey, J. L. (2005). Belief in a just world and commitment to long-term deserved outcomes. *Social Justice Research* 18, 429–444.

Hasseldine, D. J., Bebbington, K. J. (1991). Blending economic deterrence and fiscal psychology models in the design of responses to tax evasion*:* The New Zealand experience. *Journal of Economic Psychology*, 12, 299-324.

Heider, F. (1946). Attitude and cognitive organization. *Journal of Psychology*,

21, 107-112

Inglehart, R. (1997). Modernization and Post modernization. Cultural, Economic, and Political Change in 43 Societies. *Princeton University Press, Princeton*

Kirchler, E., Maciejovsky, B., and Schneider, F. (2003). Everyday representa- tions of tax avoidance, tax evasion, and tax flight: Do legal differences matter? *Journal of Economic Psychology, 24(4), 535–53.*

Kirchler, E. (2007). The economic psychology of tax behaviour. *Cambridge: Cambridge University Press.*

Kirchler, E., Mittone, L., Kastlunger, B., Pitters, J. (2009). Sequences of Audits, Tax Compliance, and Taxpaying Strategies. *Journal of Economic Psychology*, 30, 405-418.

Kirchler, E., Muehlbacher, S., Kastlunger, B., Wahl, I. (2010). Why pay Taxes? A review of Tax compliance decisions, in: J. Alm, J. Martinez-Vazquez, and B. Torgler (eds.), *Developing Alternative Frameworks for Explaining Tax Compliance*, 15-31.

Kirchler, E., Alm, J. Muehlbacher, S. (2012). Rethinking the Research Paradigms for Analysing Tax Compliance Behaviour. *Ifo Institute for Economic Research at the University of Munich*, 13(2), 33-40.

Lévy-Garboua, L., Masclet, D., Montmarquette, C. (2005). A micro-foundation for the Laffer curve in a real effort experiment. *Cahiers de la MSE*.

Lindeman, M., Verkasalo, M. (2005). Measuring values with the short Schwartz's value survey. *Journal of Personality Assessment*, 85, 170-178.

Lipkus, I. M., Dalbert, C., Siegler, I. C., (1996). The importance of distinguishing the belief in a just world for self versus for others: implications for psychological well-being. *Personality and Social Psychology Bulletin*, 22, 666–677.

Masson, E., Moscovici, S. (1997). Les mutations dans la pratique alimentaire. Processus symboliques et représentations sociales. *Rapport de recherche, Laboratoire de psychologie sociale,* EHESS, Paris.

McCullough, M. E., Emmons, R. A., Tsaang, J-A. (2002). The Grateful Disposition: A Conceptual and Empirical Topography. *Journal of Personality and Social Psychology*, 82(1), 112–127.

Mittone, L. (2006). Dynamic behaviours in tax evasion. An experimental approach. Retrieved 30 April 2005, from http://www.inomics.com/cgi/repec?handle=RePEc: wop:uteepu.

Moscovici, S. (1961). La psychanalyse, son image et son public. *Paris, Presses Universitaires de France.*

Nichita, R.-A. (2012). Does perceived governmental efficiency in managing tax money drive compliance? Evidence from a tax game. *P.H.D. Dissertation of the university of Cluj-Napoca faculty of economics and business administration.*

Porcano, T. M. (1988). Correlates of Tax Evasion. *Journal of Economic Psychology,* 9, 47-67.

Reckers, P. M., Sanders, D. L., Roark, S. J. (1994). The Influence of Ethical Attitudes on Taxpayer Compliance, *National Tax Journal,* 67, pp. 825-836.

Reinert, M. (1983). Une méthode de classification descendante hiérarchique : Application à l'analyse lexicale par contexte, *Les Cahiers de l'Analyse des Données*, 3, 187-198.

Rokeach, M. (1973). The Nature of Human Values. *New York: The Free Press.*

Roth, A. E., Prasnikar, V., Okuno-Fujiwara, M. Zamir, S. (1991). Bargaining and Market Behavior in Jerusalem, Ljubljana, Pittsburgh, and Tokyo: An Experimental Study. *American Economic Review,* 81, 1068-1095.

Rouquette, M.-L. (1973). La pensée sociale. In S. Moscovici (Ed.). *Introduction à la psychologie sociale,* Tome 2, 299-327.

Rouquette, M.-L. (1996). Représentations sociales et idéologie. In J.-C. Deschamps & J.-L. Beauvois (Eds.), *Des attitudes aux attributions. Sur la construction de la réalité sociale,* 163-173. Grenoble : Presses Universitaires de Grenoble.

Rouquette, M.-L. (1998). La communication sociale. *Paris : Dunod*

Roussiau, N., & Bonardi, C. (2002). Quelle place occupe la mémoire sociale dans le champ des représentations sociales ? *In S. Laurens & N. Roussiau (Eds.), La mémoire sociale*, 33-49. Rennes: Presses Universitaires de Rennes.

Schmölders, G. (1970). Survey research in public finance: A behavioral approach to fiscal theory. *Public Finance*, 25(2), 300–306.

Schwartz, S. H. (1992). Universals in the content and structure of values: Theory and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in experimental social psychology*, 25, 1–65. New York: Academic Press.

Schwartz, S. H., Lehmann, A., Roccas, S. (1999), *Multimethod probes of basic human values*, in: J. Adamopoulos and Y. Kashima, (eds.), *Social Psychology and Culture Context: Essays in Honor of Harry C. Triandis*. Newbury Park, CA: Sage.

Schwartz, S. H., Rubel, T. (2005). Sex differences in value priorities: Cross-cultural and multi-method studies. *Journal of Personality and Social Psychology*, 89, 1010–1028.

Schwartz, S. H. (2006). Value orientations: Measurement, antecedents and consequences across nations. In R. Jowell, C. Roberts, R. Fitzgerald, & G. Eva (Eds.). *Measuring attitudes cross-nationally - lessons from the European Social Survey*. London: Sage.

Schwartz, R. D., Orleans, S. (1967). On Legal Sanctions. *University of Chicago Law Review*, 34, 274-300.

Shankland, R., Vallet, F. (2010). Le questionnaire d'orientation reconnaissante. *Manuscrit non publié à ce jour*. Université Pierre-Mendès France–Grenoble/université de Savoie–Chambéry.

Srinivasan, T. N. (1973). Tax evasion: A model. *Journal of Public Economics*, 2, 339-346.

Tavani, J.-L. (2012). Mémoire Sociale & Pensée Sociale. Etudes empiriques de leurs influences croisées. Thèse pour obtenir le grade de Docteur de L'Université Paris Descartes. Psychologie Sociale.

Taylor, S. E., Brown, G. (1988). Illusions and well-being: a social psychological perspective on mental health. *Psychological Bulletin*, 103, 193–210.

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). Rediscovering the social group: A self-categorization theory. *Oxford: Blackwell*.

Tyler, T. R. (1990). Why people obey the law: Procedural justice, legitimacy, and compliance. *New Haven, CT: Yale University Press*.

Vergès, P. (1992). L'évocation de l'argent: une méthode pour la définition du noyau central d'une représentation. *Bulletin de Psychologie*, 65, 203-209.

Webley, P., Cole, M., and Eidjar, O.-P. (2001). The prediction of self-reported and hypothetical tax-evasion: Evidence from England, France and Norway. *Journal of Economic Psychology*, 22(2), 141–55.

Wenzel, M., Taylor, N. (2003). Toward evidence-based tax administration. *Australian Journal of Social Issues*, 38, 409-430.

Wenzel, M. (2004). An analysis of norm processes in tax compliance. *Journal of Economic Psychology*, 25, 213-228.

Wolter, R.-P., Gurrieri, C., Sorriba, E. (2009). Empirical Illustration of the Hierarchical Organisation of Social Thought: A Domino Effect? *Interamerican Journal of Psychology*, 43, 1-11.

Zaichkowsky, J. L., (1985). Measuring the involvement construct. *Journal of Consumer Research*, 12, 341-352.

Zaichkowsky, J. L., (1994). The personal involvement inventory: reduction, revision, and application to advertising. *Journal of Advertising*, 23(4), 59-70.

Annexes:

Questionnaire:

- Orientation Reconnaissante (GQ-6) (version française, Shankland, R., Université de Grenoble-2)

1. J'ai de nombreuses raisons d'être reconnaissant(e) dans la vie

2. Si je devais énumérer toutes les choses pour lesquelles je suis reconnaissant(e), la liste serait très longue

3. Quand je regarde le monde qui m'entoure, je ne vois pas beaucoup de raisons d'être reconnaissant(e)

4. Je suis reconnaissant(e) envers une grande diversité de personnes

5. En grandissant, je me trouve davantage capable d'apprécier les personnes, les événements et les situations qui ont fait partie de ma vie

6. Beaucoup de temps peut s'écouler avant que je ne me sente reconnaissant(e) envers quelque chose ou envers quelqu'un

- . CMJ-Pour soi

1. Je Pense que, dans la vie, je reçois en général ce que je mérite.

2. On me traite le plus souvent de façon juste.

3. Je pense que les efforts que je fais sont remarqués et récompensés.

- CMJ-Pour autrui

1. Je pense que, dans la vie, les gens reçoivent en général ce qu'ils méritent.

2. Les gens sont traités le plus souvent de façon juste.

3. Je Pense que les efforts que fait une personne sont remarqués et récompensés.

- Short Schwartz's Values Survey, Lindeman & Verkasalo

Veuillez noter l'importance des valeurs suivantes considérées comme des principes dirigeant votre vie en utilisant l'échelle suivante :

0= opposé à mes principes

1= pas important

4= important

8= d'une importance primordiale

1. LE POUVOIR (pouvoir social, autorité, richesse matérielle)

2. L'ACCOMPLISSEMENT (succès, capacité, ambition, influence sur les gens et sur les évènements)

3. L'HEDONISME (satisfaction des désirs, sachant jouir de la vie, indulgence avec soi-même)

4. LA STIMULATION (oser, avoir une vie variée et remplie de défis, une vie excitante)

5. L'AUTO-DIRECTION (créativité, liberté, curiosité, indépendance, choisir ses propres buts)

6. L'UNIVERSALISME (ouverture d'esprit, beauté de la nature et des arts, justice sociale, la paix dans le monde, égalité, sagesse, union avec la nature, protection de l'environnement)

7. LA BIENVEILLANCE (serviabilité, honnêteté, capacité à pardonner, loyauté, responsabilité)

8. LA TRADITION (respect des traditions, humilité, accepter sa part dans la vie, dévotion, modestie)

9. LA CONFORMITE (obéissance, honorer et respecter ses parents et les plus âgés, discipline imposée à soi-même, politesse)

10. LA SECURITE (sécurité nationale, sécurité familiale, ordre social, propreté, réciprocité des services)

- Identification au groupe, Castano

Veuillez noter ces affirmations sur une échelle allant de 1 (pas du tout) à 7 (beaucoup) :

Je m'identifie avec les autres citoyens français.

C'est important pour moi d'être un(e) citoyen(ne) français(e).

Être un(e) citoyen(ne) français(e) ne fait pas parti de mon identité(e).

Je me perçois comme étant un(e) citoyen(ne) français(e).

Je ressens de forts liens avec les autres citoyens de français.

Être un(e) citoyen(ne) français(e) ne veut pas dire grand-chose pour moi.

- TAX-I 4 échelles de 5 items d'E. Kirchler

Veuillez noter ces affirmations sur une échelle allant de 1 (pas du tout d'accord/pas du tout probable) à 7 (totalement d'accord/fortement probable) :

Payement volontaire

Quand je paye mes impôts, tel que la réglementation l'exige, je le fais :

Parce que pour moi c'est évident qu'il faut le faire.

Pour soutenir l'Etat et les autres citoyens.

Parce que j'aime contribuer au bien commun.

Parce que pour moi c'est naturel de le faire.

Parce que je considère que c'est mon devoir de citoyen(ne).

Payement imposé

Parce qu'il y a vraiment beaucoup de contrôles fiscaux.

Parce que le bureau des impôts effectue souvent des contrôles.

Parce que je sais que je vais être contrôlé(e).

Parce que les sanctions pour l'évasion fiscale sont très sévères.

Parce que je ne sais pas exactement comment évader fiscalement sans attirer l'attention.

Optimisation fiscale

Vous pourriez regarder vous-même plus en détails les réglementations fiscales afin de payer le moins d'impôts possible. Quelle est la probabilité que vous le fassiez ?

Vous pourriez installer des fenêtres à doubles vitrages dans votre logement privé et déclarer leurs coûts comme étant un réaménagement de l'espace d'habitation dans votre déclaration d'impôts sur le revenu. Ceci aurait pour effet de réduire votre charge fiscale. Quelle est la probabilité que vous effectuiez cette démarche ?

Vous pourriez suivre un cours vous informant des possibilités existantes de réclamations contre les impôts. Quelle est la probabilité que vous assistiez à ce cours ?

Vous pourriez acheter un bien de faible valeur (ordinateur, scanner, et autre matériel ayant une valeur de moins de 400 euro), dont vous n'avez pas actuellement besoin pour votre entreprise, afin de faire diminuer la somme sur laquelle est basé le calcul de vos impôts. Quelle est la probabilité que vous achetiez ces biens ?

Vous pourriez déduire de vos impôts les coûts de formations que vous avez engagées pour vos employés en tant que déduction légitime d'éducation et de formation. Quelle est la probabilité que vous utilisiez cette déduction légitime ?

Evasion fiscale

Un client paye en liquide et ne demande pas de reçu vous pourriez intentionnellement omettre cette entrée d'argent dans votre déclaration d'impôt sur le revenu. Quelle est la probabilité que vous omettiez cette entrée d'argent ?

Vous avez achetez certains de vos biens de façon privé. Vous pourriez revendre ces biens par la suite à des clients habitués et omettre le profit de cette vente dans votre déclaration d'impôt sur le revenu. Quelle est la probabilité que vous omettiez le profit de cette vente ?

Vous pourriez intentionnellement déclarer des additions de restaurants, où vous êtes allez avec vos amis, en tant que déjeuners d'affaires. Quelle est la probabilité que vous déclariez ces additions en tant que déjeuners d'affaires ?

Vous êtes allé à l'étranger pour voir de la famille et pour avoir un rendez-vous rapide avec l'un de vos fournisseurs. Au-delà de ça, vous pourriez déclarer vos dépenses, pour l'hôtel et pour les repas auxquels vous avez invité votre famille, en tant que voyage et déjeuners d'affaires. Quelle est la probabilité que vous le fassiez ?

Récemment vous avez pris part à un projet dans l'entreprise d'une connaissance. Vous pourriez dissimuler cette entrée d'argent additionnelle imposable dans votre déclaration d'impôt sur le revenu. Quelle est la probabilité que vous dissimuliez ce revenu additionnel ?

- Normes sociales et personnelles :

sociales : 5 points Likert scale.

1. Selon vous la plupart des gens pensent qu'ils doivent déclarer honnêtement leurs revenus en liquide dans leur déclaration d'impôt sur le revenu ?
2. Selon vous la plupart des gens pensent qu'il est acceptable d'exagérer leurs déductions dans leur déclaration d'impôt sur le revenu ?
3. Selon vous la plupart des gens pensent que travailler en étant payé en liquide sans payer d'impôt n'est pas très grave ?

Personnelles : 5 points Likert scale.

1. Pensez-vous devoir déclarer honnêtement vos revenus gagnés en liquide dans votre déclaration d'impôt sur le revenu ?
2. Pensez-vous qu'il est acceptable d'exagérer vos déductions dans votre déclaration d'impôt sur le revenu ?
3. Pensez-vous que travailler en étant payé en liquide sans payer d'impôt n'est pas très grave ?

- Risque perçu :

Vous avez été payé 5000 euro en cash pour un travail fait en plus de votre emploi régulier. Si vous ne déclariez pas ce revenu qu'elles seraient les chances que vous soyez pris(e) selon vous ?

Si vous étiez pris(e) quelles sont les chances que vous soyez exposé(e) aux conséquences légales suivantes :

Etre appelé(e) au tribunal + payer une amende sévère + payer les taxes dues avec intérêt

Payer une amende sévère + payer les taxes dues avec intérêt

Payer les taxes dues avec intérêt

Tables :

Table 1: Correlations between Voluntary Compliance Enforced Compliance Tax Avoidance and Tax Evasion.

	ImpotD~r	PeurCo~e	impota~e	impote~n
ImpotDevoir	1.0000			
PeurContrôle	−0.2449 0.0013	1.0000		
impotavoid~e	−0.1044 0.1753	0.2153 0.0048	1.0000	
impotevasion	−0.3165 0.0000	0.3307 0.0000	0.4822 0.0000	1.0000

Table 2: Correlations between: affect, grateful orientation, fairness beliefs for oneself, for others, identification, political involvement, individual norm, social norm, conservation, self-enhancement, openness, self-transcendence, and perceived risk.

	affect	A_OR	CMJSOI	CMJAUT~I	CMJ	identi~n	PII	normin~t	normso~t	Conser~n	Indivi~e	Ouvertur	dépass~i	percei~k
affect	1.0000													
A_OR	0.1081 0.1149	1.0000												
CMJSOI	0.1469 0.0318	0.4602 0.0000	1.0000											
CMJAUTRUI	−0.1317 0.0544	0.0854 0.2132	0.5391 0.0000	1.0000										
CMJ	0.0044 0.9493	0.3052 0.0000	0.8701 0.0000	0.8842 0.0000	1.0000									
identifica~n	0.0588 0.4189	0.2409 0.0008	0.1888 0.0089	0.2523 0.0004	0.2501 0.0005	1.0000								
PII	0.1551 0.0361	0.1845 0.0124	0.2229 0.0024	0.1333 0.0720	0.2006 0.0065	0.2904 0.0001	1.0000							
normindtot	−0.1003 0.1768	−0.1455 0.0493	0.1034 0.1638	0.1017 0.1706	0.1160 0.1180	−0.3148 0.0000	−0.0016 0.9828	1.0000						
normsoctot	−0.1654 0.0209	−0.1464 0.0412	−0.0823 0.2529	−0.1715 0.0165	−0.1447 0.0435	−0.2788 0.0001	−0.1649 0.0257	0.2710 0.0002	1.0000					
Conservation	−0.1078 0.1326	0.1378 0.0540	0.1376 0.0544	0.1351 0.0590	0.1542 0.0309	0.1862 0.0099	−0.0113 0.8794	0.0327 0.6608	−0.0283 0.6950	1.0000				
Individual~e	0.0693 0.3346	0.2794 0.0001	0.3839 0.0000	0.3778 0.0000	0.4307 0.0000	0.2705 0.0002	0.1408 0.0572	0.1000 0.1779	−0.0314 0.6630	0.1942 0.0064	1.0000			
Ouvertur	0.0459 0.5226	0.2888 0.0000	0.2409 0.0007	0.1340 0.0612	0.2107 0.0030	0.0394 0.5881	0.0678 0.3621	0.0688 0.3546	0.1005 0.1621	0.1541 0.0311	0.3646 0.0000	1.0000		
dépassemen~i	0.0208 0.7725	0.2986 0.0000	0.1250 0.0808	0.0163 0.8206	0.0785 0.2739	0.1532 0.0344	0.0808 0.2771	−0.1040 0.1611	0.0897 0.2123	0.2797 0.0001	0.0182 0.8005	0.4150 0.0000	1.0000	
perceivedr~k	−0.1026 0.1599	0.0529 0.4701	−0.1221 0.0941	−0.0153 0.8343	−0.0767 0.2943	0.0555 0.4485	−0.0106 0.8871	−0.2330 0.0015	−0.1133 0.1208	0.0268 0.7139	0.0460 0.5294	0.1489 0.0408	0.1076 0.1404	1.0000

Table 3: Regression between the Fairness Belief for Oneself and the Grateful orientation:

Source	SS	df	MS		
Model	1116.66701	1	1116.66701	Number of obs =	214
Residual	4155.76757	212	19.6026772	F(1, 212) =	56.97
				Prob > F =	0.0000
				R-squared =	0.2118
				Adj R-squared =	0.2081
Total	5272.43458	213	24.753214	Root MSE =	4.4275

A_OR	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
CMJSOI	.6921196	.0917016	7.55	0.000	.5113558	.8728834
_cons	21.13533	1.348229	15.68	0.000	18.47768	23.79298

Table 4: Regression 1: Y VoluntaryCompliance = β0 + β1. GratefulOrientation + β2.affect + β3.IndividualNorm + β4.Self-Transcendance + β5.PoliticalInvolvement + ε

Source	SS	df	MS		
Model	1966.22743	5	393.245485	Number of obs =	170
Residual	6347.07257	164	38.701662	F(5, 164) =	10.16
				Prob > F =	0.0000
				R-squared =	0.2365
				Adj R-squared =	0.2132
Total	8313.3	169	49.1911243	Root MSE =	6.2211

ImpotDevoir	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
A_OR	.2367716	.1086101	2.18	0.031	.0223172	.4512261
affect	.1718492	.076188	2.26	0.025	.0214133	.3222851
normindtot	-.438793	.1251305	-3.51	0.001	-.6858675	-.1917184
dépassemen~i	.5853969	.2754375	2.13	0.035	.041536	1.129258
PII	.1038938	.0387344	2.68	0.008	.0274114	.1803762
_cons	12.16791	4.112766	2.96	0.004	4.047107	20.28871

Table 5: Regression 2: Y VoluntaryCompliance = β0 + β1.FairBeliefsOneself + β2.FairBeliefsOthethers + β3.IndividualNorm + β4.Self-Transcendance + β5.PoliticalInvolvement + β6.TaxesPaidBefore + ε

Source	SS	df	MS		Number of obs =	170
					F(5, 164) =	11.08
Model	2099.33737	5	419.867474		Prob > F =	0.0000
Residual	6213.96263	164	37.890016		R-squared =	0.2525
					Adj R-squared =	0.2297
Total	8313.3	169	49.1911243		Root MSE =	6.1555

ImpotDevoir	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
CMJSOI	.6456571	.1741406	3.71	0.000	.3018104	.9895037
CMJAUTRUI	-.3844436	.1611079	-2.39	0.018	-.7025567	-.0663304
normindtot	-.545188	.1222939	-4.46	0.000	-.7866615	-.3037145
dépassemen~i	.5838752	.2676061	2.18	0.031	.0554777	1.112273
PII	.1098311	.0381011	2.88	0.004	.0345991	.185063
_cons	14.87348	3.390131	4.39	0.000	8.179551	21.56741

Table 6: Regression 3: Y VoluntaryCompliance = β0 + β1.FairBeliefsOneself + β2.FairBeliefsOthethers + β3.IndividualNorm + β4.Identification + β5.PoliticalInvolvement + β6.TaxesPaidBefore + ε

Source	SS	df	MS		Number of obs =	170
					F(5, 164) =	10.87
Model	2069.55034	5	413.910068		Prob > F =	0.0000
Residual	6243.74966	164	38.0716443		R-squared =	0.2489
					Adj R-squared =	0.2260
Total	8313.3	169	49.1911243		Root MSE =	6.1702

ImpotDevoir	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
CMJSOI	.6716448	.1740225	3.86	0.000	.3280314	1.015258
CMJAUTRUI	-.4834817	.1640934	-2.95	0.004	-.8074898	-.1594736
normindtot	-.4850195	.1294786	-3.75	0.000	-.7406794	-.2293596
PII	.096095	.0394138	2.44	0.016	.0182712	.1739188
identifica~n	.1388366	.0698091	1.99	0.048	.0009962	.2766771
_cons	16.73346	2.971929	5.63	0.000	10.86528	22.60164

Table 7: Regression 4: Y VoluntaryCompliance = β0 + β1.Age + β2.StudiesLevel + β3.TaxesPaidBefore + ε

Source	SS	df	MS
Model	746.639488	3	248.879829
Residual	2832.69384	83	34.1288415
Total	3579.33333	86	41.620155

Number of obs	87
F(3, 83)	7.29
Prob > F	0.0002
R-squared	0.2086
Adj R-squared	0.1800
Root MSE	5.842

ImpotDevoir	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
age	-.7387226	.2774703	-2.66	0.009	-1.2906	-.1868454
studies	1.50831	.6799443	2.22	0.029	.1559285	2.860692
taxes	8.378945	2.118856	3.95	0.000	4.164625	12.59327
_cons	35.93577	6.191235	5.80	0.000	23.62165	48.24989

Table 8: Regression 5: Y EnforcedCompliance = β0 + β1.PerceivedRisk + β2.FairBeliefsOthers + β3.SocialNorm + β4.IndividualNorm + β5.Conservation + ε

Source	SS	df	MS
Model	2005.83179	5	401.166358
Residual	8944.14468	164	54.5374676
Total	10949.9765	169	64.7927602

Number of obs	170
F(5, 164)	7.36
Prob > F	0.0000
R-squared	0.1832
Adj R-squared	0.1583
Root MSE	7.3849

PeurContrôle	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
perceivedr~k	.028782	.007053	4.08	0.000	.0148555	.0427084
CMJAUTRUI	.4311516	.1679139	2.57	0.011	.0995998	.7627033
normsoctot	.4081285	.1936912	2.11	0.037	.0256786	.7905785
normindtot	.3599475	.1567878	2.30	0.023	.0503647	.6695304
Conservation	.3267743	.1535207	2.13	0.035	.0236423	.6299062
_cons	-5.771308	3.965991	-1.46	0.148	-13.60229	2.059678

Table 9: Regression 6: Y EnforcedCompliance = β0 + β1.PerceivedRisk + β2.Self-Enhancement + β3.GratefulOrientaion + β4.IndividualNorm + ε

Source	SS	df	MS		
Model	2002.36946	4	500.592365	Number of obs	170
Residual	8947.60701	165	54.2279213	F(4, 165)	9.23
				Prob > F	0.0000
				R-squared	0.1829
				Adj R-squared	0.1631
Total	10949.9765	169	64.7927602	Root MSE	7.364

PeurContrôle	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
perceivedr~k	.0268822	.0070451	3.82	0.000	.012972	.0407924
A_OR	-.3255349	.1293801	-2.52	0.013	-.5809889	-.0700809
Individual~e	.9002821	.2607656	3.45	0.001	.3854146	1.41515
normindtot	.3488439	.1549081	2.25	0.026	.0429863	.6547015
_cons	12.60431	4.667547	2.70	0.008	3.388494	21.82013

Table 10: Regression 7: Y TaxAvoidance = β0 + β1.BeingWorker + β2.IndividualNorm + β3.Self-Enhancement + β4.Inégalité + β5.Voleur + ε

Source	SS	df	MS		
Model	1478.05237	5	295.610474	Number of obs	170
Residual	6947.1241	164	42.3605128	F(5, 164)	6.98
				Prob > F	0.0000
				R-squared	0.1754
				Adj R-squared	0.1503
Total	8425.17647	169	49.8531152	Root MSE	6.5085

impotavoid~e	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
normindtot	.2706548	.1295191	2.09	0.038	.0149148	.5263948
Individual~e	.5985541	.220348	2.72	0.007	.1634694	1.033639
travai	-2.575699	1.063535	-2.42	0.017	-4.675685	-.4757127
inegalite	-3.433256	1.649369	-2.08	0.039	-6.689993	-.1765202
voleur	3.313387	1.465565	2.26	0.025	.4195779	6.207196
_cons	15.60031	1.860259	8.39	0.000	11.92717	19.27346

Table 11: Regression 8: Y TaxEvasion = β0 + β1 .Identification + β2.IndividualNorm + β3. FairBeliefsOneself + β4.Self-Transcendance + β5.Openness. + β6.NotBornInFrance + β7.TaxesPaidBefore + β8.Merde + β9.Voleur + β10.Compliqué + β11.Excessif + ε

Source	SS	df	MS		
Model	4529.45607	11	411.768733	Number of obs =	170
Residual	6892.19687	158	43.6214992	F(11, 158) =	9.44
				Prob > F =	0.0000
				R-squared =	0.3966
				Adj R-squared =	0.3546
Total	11421.6529	169	67.5837452	Root MSE =	6.6047

impotevasion	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
bornin	3.60025	1.311529	2.75	0.007	1.009859	6.190641
taxes	-2.182565	1.058484	-2.06	0.041	-4.273169	-.0919613
identifica~n	.1735932	.0729131	2.38	0.018	.0295832	.3176033
normindtot	.8105426	.1429202	5.67	0.000	.528262	1.092823
Ouvertur	.5216322	.2205729	2.36	0.019	.0859803	.9572841
dépassemen~i	-.8116823	.3090307	-2.63	0.009	-1.422046	-.2013182
CMJSOI	-.4862103	.1641259	-2.96	0.004	-.8103741	-.1620464
merde	5.604097	2.296665	2.44	0.016	1.067972	10.14022
voleur	4.464051	1.509103	2.96	0.004	1.483433	7.444668
complique	-3.494496	1.565793	-2.23	0.027	-6.58708	-.4019111
excessif	3.462725	1.445879	2.39	0.018	.6069817	6.318469
_cons	12.22088	4.154265	2.94	0.004	4.015824	20.42594